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EXAMINER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

1. This action is responsive to the Applicant's response filed 4/29/08.

As indicated in Applicant's response, claims 1, 11, 21 have been amended, claims 22-24 canceled, and claim 25 added. Claims 1-21, 25 are pending in the office action.

#### ***Claim Objections***

2. Claims 1, 11, 21 are objected to because of the following informalities: the phrase 'generating ... execution flow descriptions *to document* the execution order of said actions' includes the verb 'document' which in light of the disclosure is mentioned as "documenting" enclosed within double quotations (Specs: pg. 5) and not elaborated further as to how this "documenting" has been implemented. Lexicographic meaning of the act of documenting dictates a form of document being persisted; and absent any conveying of such teaching in the Specifications, the terminology recited as 'to document' appears a far-fetched English language usage. The phrase 'to document' is therefore treated with no patentable weight for lack of clear justification as to how it is employed in the claim language. These claims as a whole for merely reciting steps of receiving, analyzing, generating a flow descriptions, and based upon which, effectuating more processing do not all together constitute a practical application that would yield a tangible result of any form; that is, "flow descriptions to document ... and effectuating the data processing" being a sequence not construed as able to generate tangible output subsequent the intermediate generating of a flow description, with 'to document' being an non-enabled verbiage.

The above impropriety is bordering on lack of proper support in the Specifications of the USC 112 type, and would lead to a non-statutory subject matter if not corrected.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The Federal Circuit has recently applied the practical application test in determining whether the claimed subject matter is statutory under 35 U.S.C. § 101. The practical application test requires that a “useful, concrete, and tangible result” be accomplished. An “abstract idea” when practically applied is eligible for a patent. As a consequence, an invention, which is eligible for patenting under 35 U.S.C. § 101, is in the “useful arts” when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The test for practical application is thus to determine whether the claimed invention produces a “useful, concrete and tangible result”.

The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. [http://www.uspto.gov/web/offices/pac/dapp/opla/precognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/precognotice/guidelines101_20051026.pdf)

Specifically, claim 21 recites apparatus comprising means for ‘receiving ...’, for ‘analyzing and determining ...’, and for ‘effectuating ...’; all of which being recited in method claim 1, and analyzed in light of the Specifications as software entities. The claim as a whole cannot be construed as a statutory category, because there is clear absence of hardware to support realization of the software functionality. According to the 101 Guidelines, mere listing of ‘Functional Descriptive Material’ (Annex IV, pg. 52-54) without proper computer medium for storage and/or associated hardware-based engine for carrying out program execution will be

treated as non-statutory; that is, it is actually neither one of the categories such as a process, an article of manufacture, a composition of matter or a machine; and further amounts to abstracted software entities unsupported by hardware in order to realize the software into real world tangible, concrete, and useful output.

Claim 21, for the above two deficiencies, is rejected for leading to non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-21, 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specifications in such a way as to reasonably convey one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claims 11 and 21 recite ‘effectuate in a second pass through of **the** data processing specification, **the** data processing specified by ...execution flow descriptions, the second pass through to occur after the first pass through has completed’. There is no portion in the disclosure written description that nearly mentions about a pass through effectuated upon the data processing specification as a second pass through incurring exactly as a first pass through has been completed upon the very data processing specification. The Specifications describes

execution engine 124 utilizing execution flow description to execute some x-cells (Specs: pg. 15) but there are no clear pass-throughs iterated twice, one pass-through at the end of the other. At the time the invention was made, the Inventor has not achieved exactly 2 passes through such that the second pass through is started **at the end of** the first pass through, as recited, **over the same** data processing specification. The lack of description deficiency will be treated as a processing stage using the execution flow description.

Claims 12-20 are rejected for not remedying to the lack of enabling support of the base claim.

Further, claims 1, 11, and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specifications in such a way as to reasonably convey one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The ‘to document’ as recited in claims 1, 11, 21 and identified in the Claim Objections amounts to an improper lexicographic application without specialized definition therefor and/or supporting description throughout the Specifications in terms of how a form of ‘document’ has been persisted and stored (Note: graphical display of a tree on a window screen is not treated as a document). The above ‘to document’ is treated as to enable learning or providing information about.

Claims 2-10, 12-20, 25 are likewise rejected for lack of enabling support.

***Claims Rejections – 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-21, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over W3C,

‘XML Path Language (Xpath)’ and ‘XSL Transformation (XSLT) Version 1.0; *W3C*

*Recommendation 16 November 1999*, respectively < [http://www.w3.org/TR/1999/REC-xpath-](http://www.w3.org/TR/1999/REC-xpath-19991116)

[19991116](http://www.w3.org/TR/1999/REC-xpath-19991116) > and < <http://www.w3.org/TR/xslt> > (hereinafter W3C – submitted in previous Office

Action) in view of Renner et al., USPN: 6,993,657

**As per claim 1**, W3C discloses a method of computing comprising:

receiving at execution time, a data processing specification having a first and a second data processing cell specification, specifying a first and a second data processing cell respectively, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. *template match* - sec 7.1, pg. 28, 32; sec 7.6, pg. 35-36), the first data processing cell having a data dependency on the second data processing cell, and specified in a manner to be analyzed before the second data processing cell (e.g. *<xsl: value-of select ...this expression is evaluated ... call to a string function ... string-value of the created node, match = “person”, @given-name, @family-name* - sec 7.6.1, pg. 36 – Note: analyzing *value-of select* to obtain string-value or to yield *given-name, family-name* reads on second cell whose value is what processed first cell *person* depends on, first cell identified as action *template match*).

analyzing in real time, the data processing specification, including the first and then the second data processing cell specification, to determine execution order of said actions ( or computations) specified by said first data processing cell specifications, based at least in part on

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interaction or computation references between said actions or computations specified (sec 7.3, 7.6.1, pg 35-37; value= ... value of select -sec 7.7, pg. 38; sec 8, pg. 43 );

generating one or more execution flow descriptions to document (*result tree* – sec 7, pg. 26-42; template which can be instantiated into a result tree – sec 1 Introduction, pg. 4) the execution order of said actions (or computations) based on the results of the determination; and

upon completion of the analyzing and generating, effectuating the data processing specified by the data processing specification in accordance with the execution flow descriptions (e.g. *XSLT processor ... outputting the result tree as XML ... result element written in the stylesheet as ... would be output as ...CDATA* - sec 16.1, pg. 65-66; *it would produce the following result <?xml version ... </html>* pg. 68; D.2 : *HTML output is:* pg. 86; *data into VRML* - pg. 88).

W3C does not explicitly disclose first and second cell specification being unnested with respect to each other.

In a similar XSLT scripting approach to render XML or HTML output as W3C, Renner discloses the same first cell specification including a action/computation (Table 4, *<FORM Name> ... xsl:apply-templates select = "custom" ... </FORM>*, lines 16-21; *<xsl:template match = "custom" ... xsl:apply-template select = "input[...]" ... </xsl:template>* - lines 24-31); and second cell specification, such that first data processing cell having a data dependency on the second data processing cell, and specified in a manner to be analyzed before the second data processing cell (e.g. second cell group: lines 33-35, 36-38, 39-41, 42-44, 45-47 – Note: line 26 processed before line input of name type being resolved – value-of select - in lines 34, 37, 40, 43, 46); with disposition of first and second cell specification such that first and second cell



are unnested with respect to each other. Based on W3C separating of template group cells so that action required from the first cell group necessitates resolving in a distinct second cell group (see <template name= number-block>; < template match ... call-template name=numbered-block> sec 11.6, pg. 51-52, bottom; D.1: *xsl: template match = para; xsl: template match = note* pg. 83) it would have been obvious for one skill in the art at the time the invention was made to implement XSLT template matching operations as purported in W3C and grouping as above for action or computation of first cell such that value resolving in second cell would fulfill the data dependency in the first cell so that first and second cell are clearly unnested with respect one another as in Renner because this would yield greater flexibility and clarity to W3c intended group of actions needed to resolve a larger number or variety of type of data/parameter or value via implementing numerous distinct second group of cells, the resolution of values thereof would fulfill the data required to resolve the other distinct first group of cells, as this has been perceived from the above two similar approaches.

**As per claim 2**, W3C discloses wherein each of said first and second data processing cell specifications is delineated by a beginning and an ending data processing cell specification tag ( e.g. sec 11.6, pg. 51-52, bottom).

**As per claim 3**, W3C discloses wherein said first data processing cell specification has a formula referencing a value of said second data processing cell specification (sec 11.6, pg. 51-52, bottom; *template match ... select value-of* - sec 7.6.1, pg 36; sec 7.7, pg. 38).

**As per claims 4-5**, W3C discloses wherein one or both of said first and second data processing cell specifications comprise one or more attribute specifications specifying one or more attributes (e.g. sec 7.6.2 Value Templates, pg. 37; *number format = " {\$format}"*; with-

*param name* = “*format*”, pg. 52 top) of the corresponding data processing cell(s); wherein the first data processing cell has a first attribute referencing a second attribute of said second data processing cell.

**As per claim 6**, W3C discloses wherein said second data processing cell specification comprises a reserved mnemonic for providing input (sec 7.6.2: *\$image-dir* ; {*size/@width*} pg. 37; *item[position() = \$n]*, pg. 49) to the data processing specified by the data processing specification.

**As per claim 7**, W3C discloses wherein said first data processing cell specification is a reserved output cell specification specifying output of the data processing specified by the data processing specification (*xsl: output*, *xsl: output method* – pg. 7; chp. 16.1, 16.2 pg. 64-68; *xsl:output* pg. 75).

**As per claim 8**, W3C discloses wherein said second data processing cell specification comprises a conditionally executed formula (e.g. *<xsl: if... />* pg. 74; *<xsl: otherwise ... />* – pg. 75).

**As per claims 9-10**, W3C discloses wherein said data processing specification further includes one or more global attributes (e.g. *xsl: stylesheet version = "1.0"* *xmlns:xsl="http://... xmlns="http://www.w3.org/1999... /strict">* pg. 7, 9) specifying one or more global processing characteristics for the specified data processing; wherein said one or more global attributes include a global attribute specifying a format for providing the specified data processing with an HTTP request (e.g. *<xsl: stylesheet version="1.0" xmlns=xsl="http:// ... /strict">* pg. 83).

**As per claim 11**, W3C discloses an apparatus comprising:

at least one storage unit having stored thereon programming instructions designed to: receive at execution time, a data processing specification having a first and a second data processing cell specification, specifying a first and a second data processing cell, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. *template match* - sec 7.1, pg. 28, 32; sec 7.6, pg. 35-36), the first data processing cell having a data dependency on the second data processing cell, and specified in a manner to be analyzed before the second data processing cell (e.g. *<xsl: value-of select ...this expression is evaluated ... call to a string function ... string-value of the created node, match = "person", @given-name, @family-name* - sec 7.6.1, pg. 36 – Note: analyzing *value-of select* to obtain string-value or to yield *given-name, family-name* reads on second cell whose value is what processed first cell *person* depends on, first cell identified as action *template match* );

analyze in real time, the data processing specification in a first pass through of the data processing specification to determine an execution order of said actions/computations specified by said first and second data processing cell specifications, based at least in part on interaction or computation references between said actions or computations specified (sec 7.3, 7.6.1, pg 35-37; *value= ... value of select* -sec 7.7, pg. 38; sec 8, pg. 43),

generate one or more execution flow descriptions to document (*result tree* – sec 7, pg. 26-42; template which can be instantiated into a result tree – sec 1 Introduction, pg. 4) the execution order of said actions/computations based on the results of the determination, and

effectuate in a second pass through of the data processing specification the data processing specified by the data processing specification in accordance with the execution flow descriptions, the second pass through to occur after the first pass through has completed (e.g.

*XSLT processor ... outputting the result tree as XML ... result element written in the stylesheet as ... would be output as ...CDATA - sec 16.1, pg. 65-66; it would produce the following result*  
*<?xml version ... </html>* pg. 68; D.2 : *HTML output is:* pg. 86; *data into VRML -* pg. 88 –  
Note: processing the xsl tree to yield output in XML, HTML reads on processing after result tree is completed);

and at least one processor coupled to said at least one storage unit to execute said programming instructions (*XSLT 1.0 processor* – sec 2.5, pg. 10 bottom; sec 2.1: *XSLT processor* – pg 6 ).

W3C does not disclose first and second cell specification being unnested with respect to each other. But this limitation has been addressed in claim 1.

**As per claims 12-20**, refer to claims 2-10, respectively.

**As per claim 21**, W3C discloses an apparatus comprising means for:

receiving at execution time, a data processing specification having a first and a second data processing cell specifications, unnested with respect to each other, specifying a first and a second data processing cell, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (refer to claim 11), the first data processing cell having a data dependency of the second data processing cell, and specified in a manner to be analyzed first (refer to claim 11);

analyzing in real time, the data processing specification in a first pass through of the data processing cell specification, to determine execution order of said actions/computations specified by said first data processing cell specifications (refer to claim 11) based at least in part on interaction or computation references between said actions or computations specified;

generating one or more execution flow descriptions to document (refer to claim 11) the execution order of said actions/computations based on the results of the determination; and

effectuating in a second pass through of the data processing specification the data processing specified by the data processing specification in accordance with the execution flow descriptions, the second pass through to occur after the first pass through has completed (refer to claim 11).

**As per claim 25**, W3C does not disclose wherein the execution flow descriptions comprise interdependency information representing by a directed graph; but since XML elements amount to a hierarchical structure being basically a directed tree, the result tree by W3C entails a structure similar to XML elements (result tree – sec 1, Introduction pg. 4 – Note: conformance in namespace between XSLT language and XML language – see sec 2.1 pg. 6 - reads on tree having directed structure because XML parse tree is always directed). It would have been obvious for one skill in the art at the time the invention was made to the result tree as set forth above so that this tree is directed graph, because of the compliancy in namespace and the deriving of XML document from parsing the result tree (e.g. sec 16.1, pg. 65-66; *it would produce the following result* `<?xml version ... </html>` pg. 68)

### ***Response to Arguments***

9. Applicant's arguments filed 4/29/08 have been fully considered but in regard to the Rejection under § 102, they are moot in light of the new grounds of rejection which have been necessitated by the Amendments.

10. Regarding § 101 rejection, Applicants have submitted that some pages and figure in the Disclosure teach processors, and mass storage for storing and executing the programming

instructions. The programming instructions are interpreted as the executing entity for performing the acts of *receiving, analyzing, generating, and effectuating* (refer to claim 21), and listing of mere software functionality without explicit support of hardware will be treated as mere 'Functional Descriptive Material', and while the Specifications cannot be imported into the claims, the above acts will be construed only to the extent that they are performed by Software instructions. Therefore, the claim does not belong to any statutory category of subject matter, nor is it viewed as a Practical Application, absent hardware to store then to realize software instructions that would, when executed by such hardware support, perform the above acts.

11. The claims will stand rejected as set forth in the Office Action.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

July 26, 2008